

# Communicable Diseases Surveillance

## Highlights

Communicable Diseases Surveillance consists of data from various sources. The National Notifiable Diseases Surveillance System (NNDSS) is conducted under the auspices of the Communicable Diseases Network Australia New Zealand. The *CDI* Virology and Serology Laboratory Reporting Scheme (LabVISE) is a sentinel surveillance scheme. The Australian Sentinel Practice Research Network (ASPREN) is a general practitioner-based sentinel surveillance scheme. In this report, data from the NNDSS are referred to as 'notifications' or 'cases', whereas those from ASPREN are referred to as 'consultations' or 'encounters' while data from the LabVISE scheme are referred to as 'laboratory reports'.

### *Vaccine preventable diseases*

With the exception of *Haemophilus influenzae* type b (Hib) infection the other vaccine preventable diseases notifications for the year to date, were lower than in 1998. In particular the number of notifications of pertussis and rubella were notably lower.

The number of pertussis notifications was higher for this reporting period (302) than both the previous one (245) and the corresponding reporting period in 1998 (289). However, the number of cases for the year to date was lower in 1999 (2,619) than 1998 (4,894), reflecting an ongoing decrease in the year to date case numbers.

The number of rubella notifications was lower for this reporting period (23) than the previous one (34) and the corresponding reporting period in 1998 (104). Overall, the number of cases for the year to date decreased in 1999 (259) compared with 1998 (578).

The number of Hib infections was higher for this reporting period (3) than the previous one (1) and the corresponding

reporting period in 1998 (2). Overall the number of cases for the year to date increased in 1999 (30) compared with 1998 (22). The ratio of males to females was 1:1.5 for this reporting period. The peak number of cases for males (7) and females (6) occurred in the 0-4 year age group with a second peak for females in the 70-74 year age group (4).

### *Meningococcal disease*

The number of notifications of meningococcal disease (58) did not increase in this reporting period compared with the previous period (64) or the corresponding period in 1998 (62). However, the number of cases for the year to date reported in 1999 (373) was higher than for the same period in 1998 (308).

### *Vectorborne*

The number of cases of dengue infection was higher for this reporting period (5) than for the previous one (2) but lower than for the corresponding reporting period in 1998 (22). Likewise, the overall number of cases to date for the year has decreased for 1999 (163) compared with 1998 (378).

The number of cases of Ross River virus infection for this reporting period (34) was lower than the previous period (67) and for a similar period in 1998 (81). However, overall the number of cases to date for the year increased for 1999 (3,986) compared with 1998 (2,412).

### *Zoonoses*

The number of cases of Q fever for this reporting period (14) was similar to the previous period (12) but significantly lower than for a similar period in 1998 (49). Overall the number of cases to date for the year had decreased for 1999 (324) compared with 1998 (386).

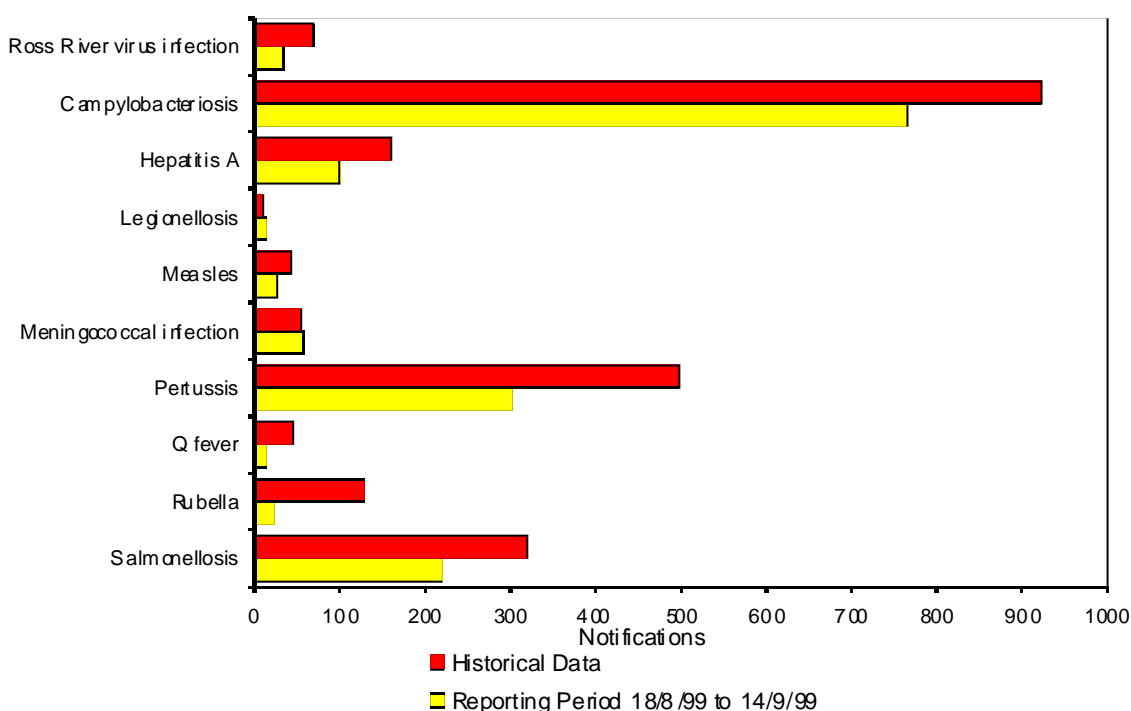
# Tables

There were 4,477 notifications to the National Notifiable Diseases Surveillance System (NNDSS) in the four week period, 18 August to 14 September 1999 (Tables 1 and 2). The numbers of reports for selected diseases have been compared with historical data for corresponding periods in the previous three years (Figure 1).

There were 3,853 reports received by the *CDI/Virology and Serology Laboratory Reporting Scheme (LabVISE)* in the four week period, 12 August to 8 September 1999 (Tables 3 and 4).

The Australian Sentinel Practice Research Network (ASPREN) data for weeks 33 to 36, ending 12 September 1999, are included in this issue of *CDI* (Table 5).

**Figure 1. Selected National Notifiable Diseases Surveillance System reports, and historical data<sup>1</sup>**



1. The historical data are the averages of the number of notifications in the corresponding 4 week periods of the last 3 years and the 2 week periods immediately preceding and following those.

**Table 1. Notifications of diseases preventable by vaccines recommended by the NHMRC for routine childhood immunisation, received by State and Territory health authorities in the period 18 August to 14 September 1999**

Disease <sup>1</sup>	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	This period 1999	This period 1998	Year to date 1999 <sup>2</sup>	Year to date 1998
Diphtheria	0	0	0	0	0	0	0	0	0	0	0	0
<i>H. influenzae</i> type b infection	0	1	0	0	1	0	1	0	3	2	30	22
Measles <sup>3</sup>	0	1	0	0	0	1	21	3	26	31	202	255
Mumps	1	2	2	0	0	1	4	7	17	30	129	139
Pertussis	5	123	0	0	15	108	44	7	302	312	2,619	4,894
Rubella <sup>3</sup>	0	2	0	1	0	0	17	3	23	104	259	578
Tetanus	0	0	0	0	0	0	1	0	1	1	2	4

NN. Not Notifiable

- No notification of poliomyelitis has been received since 1978.
- Totals comprise data from all States and Territories. Cumulative figures are subject to retrospective revision, so there may be

discrepancies between the number of new notifications and the increment in the cumulative figure from the previous period.

- Notifications for Victoria include suspected cases.
- Includes congenital rubella.

**Table 2. Notifications of diseases received by State and Territory health authorities in the period 18 August to 14 September 1999**

Disease <sup>1,2,3</sup>	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	This period 1999	This period 1998	Year to date 1999 <sup>4</sup>	Year to date 1998
Arbovirus infection (NEC)	0	0	0	0	0	0	0	0	0	2	70	52
Barmah Forest virus infection	0	9	2	0	0	0	1	2	14	31	507	435
Brucellosis	0	0	0	0	0	0	1	0	1	2	20	30
Campylobacteriosis <sup>5</sup>	21	-	24	6	184	51	369	110	765	1,136	8,787	8,340
Chancroid	0	0	0	0	0	0	0	0	0	0	0	1
Chlamydial infection (NEC) <sup>6,7</sup>	17	146	65	6	66	34	208	146	688	975	9,518	7,659
Cholera	0	0	0	0	0	0	1	0	1	0	3	3
Dengue	0	3	1	0	0	0	0	1	5	22	163	378
Donovanosis <sup>7</sup>	0	0	1	0	NN	0	0	0	1	1	14	26
Gonococcal infection <sup>8</sup>	2	77	76	1	12	2	41	76	287	424	3,869	3,732
Haemolytic uraemic syndrome <sup>9</sup>	NN	1	0	0	0	0	NN	0	1	3	13	10
Hepatitis A	0	13	11	1	3	1	29	42	100	133	1,159	2,067
Hepatitis B incident	0	2	0	0	0	0	1	2	5	19	202	190
Hepatitis B unspecified <sup>10</sup>	0	137	0	0	0	7	208	21	373	496	4,858	4,466
Hepatitis C incident	0	6	0	-	1	0	1	10	18	33	210	213
Hepatitis C unspecified <sup>10</sup>	8	458	19	17	98	33	608	83	1,324	1,596	14,059	13,559
Hepatitis (NEC) <sup>11</sup>	0	0	0	0	0	0	0	NN	0	2	14	12
Hydatid infection	0	NN	0	0	0	0	1	0	1	7	22	32
Legionellosis	0	2	0	0	3	0	3	6	14	12	191	176
Leprosy	0	1	0	0	0	0	0	0	1	0	4	2
Leptospirosis	0	0	0	0	0	0	3	2	5	7	276	117
Listeriosis	0	0	0	0	1	0	2	0	3	4	33	42
Malaria	2	10	9	0	1	1	4	4	31	32	518	564
Meningococcal infection	3	23	0	0	3	1	19	9	58	62	373	308
Ornithosis	0	NN	0	0	2	1	5	0	8	1	60	27
Q Fever	0	9	0	1	0	0	2	2	14	49	324	386
Ross River virus infection	0	13	4	0	1	1	4	11	34	81	3,986	2,412
Salmonellosis (NEC)	0	71	12	4	24	4	57	48	220	376	5,594	5,676
Shigellosis <sup>5</sup>	1	-	4	0	4	0	8	9	26	35	412	445
SLTEC, VTEC <sup>12</sup>	NN	0	0	NN	3	0	NN	NN	3	1	20	9
Syphilis <sup>13</sup>	3	36	19	1	0	0	0	3	62	188	1,299	1,095
TTP <sup>14</sup>	0	0	0	0	0	0	0	0	0	0	0	0
Tuberculosis	2	19	2	0	5	0	1	5	34	87	632	693
Typhoid <sup>15</sup>	0	5	0	0	0	0	0	0	5	4	52	52
Yersiniosis (NEC) <sup>5</sup>	0	-	0	1	1	0	1	0	3	7	109	164

1. Diseases preventable by routine childhood immunisation are presented in Table 1.

2. For HIV and AIDS, see Tables 6 and 7.

3. No notifications have been received during 1999 for the following rare diseases: lymphogranuloma venereum, plague, rabies, yellow fever, or other viral haemorrhagic fevers.

4. Totals comprise data from all States and Territories. Cumulative figures are subject to retrospective revision so there may be discrepancies between the number of new notifications and the increment in the cumulative figure from the previous period.

5. Not reported for NSW because it is only notifiable as 'foodborne disease' or 'gastroenteritis in an institution'.

6. WA: genital only.

7. Notifications from NSW have been received since September 1998, and were first reported in *CD* in Issue 23(9).

8. NT, Qld, SA and Vic: includes gonococcal neonatal ophthalmia.

9. Nationally reportable from August 1998.

10. Unspecified numbers should be interpreted with some caution as the magnitude may be a reflection of the numbers of testings being carried out.

11. Includes hepatitis D and E.

12. Infections with *Shiga*-like toxin (verotoxin) producing *E. Coli* (SLTEC/VTEC) became nationally reportable in August 1998.

13. Includes congenital syphilis.

14. Thrombotic thrombocytopenic purpura became nationally reportable in August 1998.

15. NSW, Qld: includes paratyphoid.

NN Not Notifiable.

NEC Not Elsewhere Classified.

- Elsewhere Classified.

Table 3. Virology and serology laboratory reports by State or Territory<sup>1</sup> for the reporting period 12 August to 8 September 1999, and total reports for the year

	State or Territory <sup>1</sup>								Total this period	Total reported in 1999 <sup>2,3</sup>	
	ACT	NSW	NT	Qld	SA	Tas	Vic	WA			
<b>Measles, mumps, rubella</b>											
Measles virus							3			3	143
Mumps virus							1	2		3	40
Rubella virus		2		41		1	2	1		47	108
<b>Hepatitis viruses</b>											
Hepatitis A virus			13	19				11		43	296
Hepatitis D virus				1						1	5
<b>Arboviruses</b>											
Ross River virus		6	10	65		1		2		84	1,215
Barmah Forest virus				14				1		15	135
Dengue not typed								2		2	40
Flavivirus (unspecified)			1	1						2	16
<b>Adenoviruses</b>											
Adenovirus type 1							1			1	18
Adenovirus type 4		1								1	13
Adenovirus type 8							1			1	1
Adenovirus type 37							1			1	14
Adenovirus type 40								5		5	59
Adenovirus not typed/pending		26		10			19	26		81	898
<b>Herpes viruses</b>											
Herpes virus type 6								3		3	10
Cytomegalovirus		17		44			30	10		101	851
Varicella-zoster virus		21	6	115	1	1	33	22		199	1,246
Epstein-Barr virus		6	6	216		1	8	8		245	1,740
<b>Other DNA viruses</b>											
Papovavirus group							1			1	11
Molluscum contagiosum								2		2	13
Parvovirus		2		33	3		16	10		64	342
<b>Picornavirus family</b>											
Coxsackievirus B5		1								1	6
Echovirus type 9		1								1	4
Echovirus type 11		23	2							25	44
Echovirus not typed/pending							1			1	120
Poliovirus type 1 (uncharacterised)		3								3	2
Poliovirus type 2 (uncharacterised)		2								2	21
Poliovirus type 3 (uncharacterised)		1								1	20
Rhinovirus (all types)		40					6	7		53	7
Enterovirus type 71 (BCR)							5	1		6	340
Enterovirus not typed/pending		1	2	8			4	51		66	621
<b>Ortho/paramyxoviruses</b>											
Influenza A virus		92	1	112			72	125		402	1,432
Influenza A virus H3N2							4			4	27
Influenza B virus		37		10			4	6		57	182
Parainfluenza virus type 1		2		1			1	1		5	36
Parainfluenza virus type 2							7	2		9	95
Parainfluenza virus type 3		22		12			8	49		91	561
Parainfluenza virus type 4								1		1	3
Respiratory syncytial virus		189	1	151		1	190	134		666	2,307

**Table 3. Virology and serology laboratory reports by State or Territory<sup>1</sup> for the reporting period 12 August to 8 September 1999, and total reports for the year (continued)**

	State or Territory <sup>1</sup>								Total this period	Total reported in 1999 <sup>2,3</sup>
	ACT	NSW	NT	Qld	SA	Tas	Vic	WA		
<b>Other RNA viruses</b>										
Rotavirus		256					82	65	403	1,507
Norwalk agent							3		3	60
<b>Other</b>										
<i>Chlamydia trachomatis</i> not typed		45	62	301			4	48	460	2,305
<i>Chlamydia pneumoniae</i>								1	1	1
<i>Chlamydia psittaci</i>							3		3	73
<i>Chlamydia</i> species		2		4					6	17
<i>Mycoplasma pneumoniae</i>		5	1	103			26	2	137	854
<i>Coxiella burnetii</i> (Q fever)		4	1	37				1	43	144
<i>Rickettsia</i> spp - other								2	2	10
<i>Streptococcus</i> group A		4	12	87					103	142
<i>Yersinia enterocolitica</i>				1					1	10
<i>Brucella</i> species				3					3	5
<i>Bordetella pertussis</i>		1	1	133			11	2	148	526
<i>Legionella longbeachae</i>								2	2	31
<i>Leptospira</i> species		1		11				1	13	6
<i>Treponema pallidum</i>		8	130	86				1	225	311
<i>Entamoeba histolytica</i>				1					1	2
<b>Total</b>	0	821	249	1,620	4	5	547	607	3,853	19,046

1. State or Territory of postcode, if reported, otherwise State or Territory of reporting laboratory.

2. In 1999, data from the Institute of Clinical Pathology & Clinical Research, Westmead were under reported up to September.

3. Totals comprise data from all laboratories. Cumulative figures are subject to retrospective revision, so there may be discrepancies between the number of new notifications and the increment in the cumulative figure from the previous period.

**Table 4. Virology and serology laboratory reports by contributing laboratories for the reporting period 12 August to 8 September 1999**

State or Territory	Laboratory	Reports
New South Wales	Institute of Clinical Pathology & Medical Research, Westmead	190
	New Children's Hospital, Westmead	372
	Royal Prince Alfred Hospital, Camperdown	178
Queensland	Queensland Medical Laboratory, West End	1,938
	Townsville General Hospital	22
Victoria	Royal Children's Hospital, Melbourne	378
	Victorian Infectious Diseases Reference Laboratory, Fairfield	166
Western Australia	PathCentre Virology, Perth	363
	Princess Margaret Hospital, Perth	246
<b>Total</b>		3,853

**Table 5. Australian Sentinel Practice Research Network reports, weeks 33 to 36, 1999**

Week number	33		34		35		36	
Week ending on	22 August 1999		29 August 1999		5 September 1999		12 September 1999	
Doctors reporting	56		49		49		30	
Total encounters	7,839		7,103		6,876		4,130	
Condition	Rate per 1,000		Rate per 1,000		Rate per 1,000		Rate per 1,000	
	Reports	encounters	Reports	encounters	Reports	encounters	Reports	encounters
Influenza	137	17	105	15	77	11	30	7
Rubella	0	0	0	0	1	0	1	0
Measles	2	0	2	0	2	0	0	0
Chickenpox	9	1	8	1	9	1	7	2
New diagnosis of asthma	14	2	3	0	7	1	7	2
Post operative wound sepsis	9	1	7	1	5	1	3	1
Gastroenteritis	61	8	53	7	58	8	35	8

The NNDSS is conducted under the auspices of the Communicable Diseases Network Australia New Zealand. The system coordinates the national surveillance of more than 40 communicable diseases or disease groups endorsed by the National Health and Medical Research Council (NHMRC). Notifications of these diseases are made to State and Territory health authorities under the provisions of their respective public health legislations. De-identified core unit data are supplied fortnightly for collation, analysis and dissemination. For further information, see CDI 1999;23:55.

LabVISE is a sentinel reporting scheme. Twenty-one laboratories contribute data on the laboratory identification of viruses and other organisms. Data are collated and published in Communicable Diseases Intelligence every four weeks. These data should be interpreted with caution as the number and type of reports received is subject to a number of biases. For further information, see CDI 1999;23:58.

ASPREN currently comprises about 100 general practitioners from throughout the country. Up to 9,000 consultations are reported each week, with special attention to 12 conditions chosen for sentinel surveillance in 1999. CDI reports the consultation rates for seven of these. For further information, including case definitions, see CDI 1999;23:55-56.

## Additional Reports

### National Influenza Surveillance, 1999

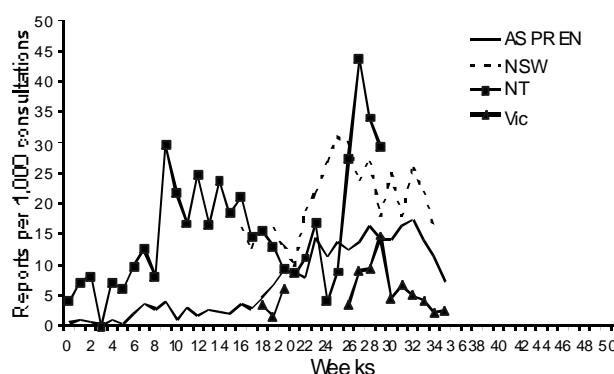
Three types of data are included in National Influenza Surveillance, 1999. These are sentinel general practitioner surveillance conducted by the Australian Sentinel Practice Research Network, Department of Human Services (Victoria), Department of Health (New South Wales) and the Tropical Influenza Surveillance Scheme, Territory Health (Northern Territory); laboratory surveillance data from the Communicable Diseases Intelligence Virology and Serology Laboratory Reporting Scheme, LabVISE, and the World Health Organization Collaborating Centre for Influenza Reference and Research; and absenteeism surveillance conducted by Australia Post. For further information about these schemes, see CDI 1999; 23:56.

#### Sentinel general practitioner surveillance

Over the last 4 week reporting period up until 8 September 1999 reports of influenza consultations were provided from ASPREN and the Victorian Sentinel Scheme. Reports were not available from The Tropical Influenza Surveillance Program (NT) due to the

management of the Timorese refugees and reports were not available from the NSW Sentinel Scheme for the last week of the reporting period. From the available data the

**Figure 1. Sentinel general practitioner influenza consultation rates, 1999, by scheme**

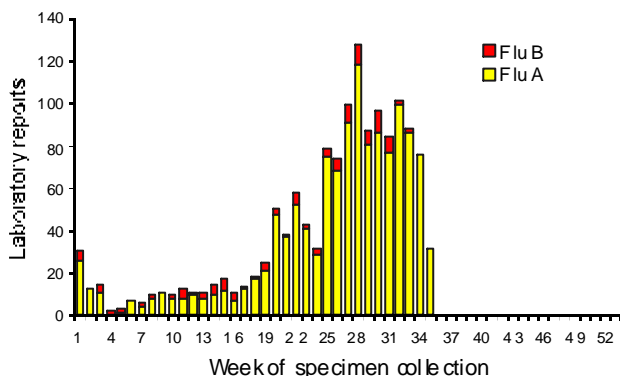


rate of reports of influenza consultations had a consistent downward trend. By the end of the period the rate of reports of influenza consultations had reached 7/1,000 for ASPREN, 2/1,000 for the Victorian Sentinel Scheme and 16/1,000 for the NSW Sentinel Surveillance Scheme. The rates for ASPREN and the Victorian Sentinel Scheme were returning to levels seen in late April to early May of this year (Figure 1).

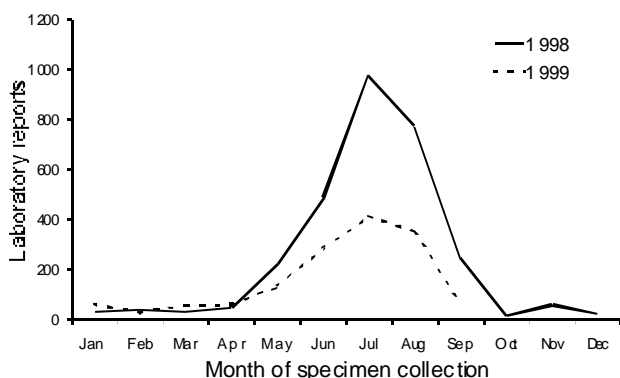
**Laboratory surveillance**

For the year to date a total of 1,442 laboratory reports of influenza have been received. Of these 1,323 (92%) were influenza A and 119 (8%) influenza B. The trend in the number of laboratory reports was downwards, consistent with the trend in the clinical notifications (Figure 2). The number of influenza A reports to date is again less than the previously recorded high noted in 1998 (Figure 3).

**Figure 2. Laboratory reports of influenza, 1999, by type and by week of specimen collection**



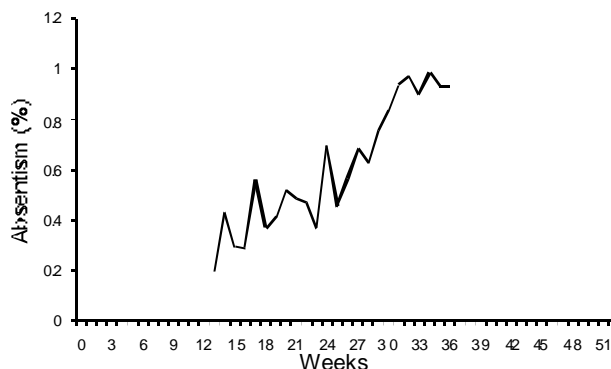
**Figure 3. Laboratory reports of influenza, 1998-99, by month of specimen collection**



**Absenteeism surveillance**

The average rate for the last 4 week reporting period were 0.95% and the maximum rate was 1.0%. The rates show a plateauing of the upwards trend noted in previous reports but again a marked increase compared to a similar period in 1998 (Figure 4).

**Figure 4. Absenteeism rates in Australia Post, 1999**



*HIV and AIDS Surveillance*

National surveillance for HIV disease is coordinated by the National Centre in HIV Epidemiology and Clinical Research (NCHECR), in collaboration with State and Territory health authorities and the Commonwealth of Australia. Cases of HIV infection are notified to the National HIV Database on the first occasion of diagnosis in Australia, by either the diagnosing laboratory (ACT, New South Wales, Tasmania, Victoria) or by a combination of laboratory and doctor sources (Northern Territory, Queensland, South Australia, Western Australia). Cases of AIDS are notified through the State and Territory health authorities to the National AIDS Registry. Diagnoses of both HIV infection and AIDS are notified with the person's date of birth and name code, to minimise duplicate notifications while maintaining confidentiality.

Tabulations of diagnoses of HIV infection and AIDS are based on data available three months after the end of the reporting interval indicated, to allow for reporting delay and to incorporate newly available information. More detailed information on diagnoses of HIV infection and AIDS is published in the quarterly Australian HIV Surveillance Report, and annually in HIV/AIDS and related diseases in Australia Annual Surveillance Report. The reports are available from the National Centre in HIV Epidemiology and Clinical Research, 376 Victoria Street, Darlinghurst NSW 2010. Telephone: (02) 9332 4648; Facsimile: (02) 9332 1837; <http://www.med.unsw.edu.au/nchechr>.

HIV and AIDS diagnoses and deaths following AIDS reported for 1 to 30 June 1999, as reported to 30 September 1999, are included in this issue of CDI (Tables 6 and 7).

**Table 6. New diagnoses of HIV infection, new diagnoses of AIDS and deaths following AIDS occurring in the period 1 to 30 June 1999, by sex and State or Territory of diagnosis**

									Totals for Australia				
		ACT	NSW	NT	Qld	SA	Tas	Vic	WA	This period 1999	This period 1998	Year to date 1999	Year to date 1998
HIV diagnoses	Female	1	2	0	0	0	0	1	0	3	5	34	39
	Male	0	14	0	4	1	0	10	0	29	48	272	333
	Sex not reported	0	2	0	0	0	0	0	0	2	0	2	5
	Total <sup>1</sup>	0	18	0	4	1	0	11	0	34	53	308	377
AIDS diagnoses	Female	0	0	0	0	0	0	0	0	0	1	3	7
	Male	0	2	0	0	0	0	0	0	2	25	41	146
	Total <sup>1</sup>	0	2	0	0	0	0	0	0	2	26	44	153
AIDS deaths	Female	0	0	0	0	0	0	0	0	0	2	1	4
	Male	0	2	0	1	0	0	2	0	5	13	40	72
	Total <sup>1</sup>	0	2	0	1	0	0	2	0	5	15	42	76

1. Persons whose sex was reported as transgender are included in the totals.

**Table 7. Cumulative diagnoses of HIV infection, AIDS and deaths following AIDS since the introduction of HIV antibody testing to 30 June 1999, by sex and State or Territory**

		State or Territory								Australia
		ACT	NSW	NT	Qld	SA	Tas	Vic	WA	
HIV diagnoses	Female	24	591	9	138	57	5	206	109	1,139
	Male	189	10,630	107	1,908	655	79	3,813	884	18,265
	Sex not reported	0	260	0	0	0	0	24	0	284
	Total <sup>1</sup>	213	11,500	116	2,053	712	84	4,056	996	19,730
AIDS diagnoses	Female	8	173	0	46	21	3	67	26	344
	Male	85	4,546	35	794	330	44	1,595	344	7,773
	Total <sup>1</sup>	93	4,731	35	842	351	47	1,669	372	8,140
AIDS deaths	Female	3	113	0	30	15	2	47	16	226
	Male	64	3,135	24	557	227	28	1,250	245	5,530
	Total <sup>1</sup>	67	3,256	24	589	242	30	1,303	262	5,773

1. Persons whose sex was reported as transgender are included in the totals.